AMENDMENTS TO THE CLAIMS

Claims 1-28 (cancelled)

Claim 29 (currently amended):   A method of controlling the ~~walking~~ movement of a ~~two~~ legged ~~walking~~ figure coupled to a drive mechanism, the method comprising:

~~determining a reference line;~~

receiving a command from an input device, the command representing a velocity to move the ~~walking~~ figure;

translating the velocity into a step length ~~distance to move~~;

moving the entire figure at the velocity represented by the received command using the drive mechanism;

while the figure is moving, coordinating the leg movement by moving a first leg a distance corresponding to the step length ~~a specified distance with respect to the~~ a reference line; and

moving [[the]] a second leg once the first leg is planted on the ground.

Claim 30 (currently amended):   The method of claim 29 wherein the ~~joystick~~ input device directly controls the velocity ~~of the wheels~~.

Claims 31 - 37 (cancelled)

Claim 38 (currently amended):   The method of claim 29 wherein the act of moving the first leg comprises ~~a sensor for~~ determining the force when contacting the ground.

Claims 39-51 (cancelled)

Claim 52 (newly added):   The method of claim 29 wherein the act of moving the entire figure is implemented by a wheeled vehicle coupled to the figure.

Claim 53 (newly added):   The method of claim 29 wherein the act of moving the first leg comprises moving the first leg along a partially predetermined trajectory.

Claim 54 (newly added): The method of claim 29 wherein the act of moving the first leg comprises moving the first leg along a partially predetermined trajectory.

Claim 55 (newly added): The method of claim 29 wherein the act of moving the first leg comprises moving the first leg to a predetermined height.

Claim 56 (newly added): The method of claim 29 further comprising:

translating the velocity into a step time; and

completing the act of moving the first leg within the step time.

Claim 57 (newly added): The method of claim 29 further comprising:

stopping vertical motion of the first leg at the conclusion of a step when a preset ground force threshold is exceeded.

Claim 58 (newly added): The method of claim 57 wherein the ground force is sensed indirectly by reading the current commanded to actuators in the first leg.

Claim 59 (newly added): A method of controlling the movement of a legged figure, comprising:

coupling the legged figure to a wheeled support, the wheeled support being propelled by a drive mechanism;

receiving a command from an input device, the command representing a velocity to move the wheeled support;

translating the velocity into a step length of the legged figure;

moving the wheeled support at the velocity represented by the received command using the drive mechanism; and

simultaneously moving the legged figure by moving a first leg a distance corresponding to the step length and moving a second leg once the first leg is planted on the ground, the movement of the legged figure being synchronized with the movement of the wheeled support.

Claim 60 (newly added): The method of claim 59 wherein moving the first leg comprises moving the first leg along a partially predetermined trajectory.

Claim 61 (newly added): The method of claim 59 wherein moving the first leg comprises moving the first leg to a predetermined height.

Claim 62 (newly added): The method of claim 59 further comprising:

stopping vertical motion of the first leg at the conclusion of a step when a preset ground force threshold is exceeded.

Claim 63 (newly added): The method of claim 62 wherein the ground force is sensed indirectly by reading the current commanded to actuators in the first leg.